

## Antilymphocyte Globulin (ALG) in Clinical Organ Transplantation

Antilymphocyte globulin (ALG) prepared from horses immunized against human lymphocytes is being widely employed for its immunosuppressive action in recipients of vital organ transplants. The cells used in immunization have been derived from spleen, thymus, lymph nodes, thoracic duct or blast cells produced in vitro. Variation in the source of cells used for immunization of horses and the method of refining ALG may result in a variable product.

Immunosuppressive action may not parallel a rising cytotoxicity titer. The most widely employed test of immunosuppressive effect has been a biological test in primate skin grafts developed by Balner.

The potent effect of ALG on cellular immunity may expose the recipient to an increased risk of infection by opportunistic fungi, protozoa. There may be an increased risk of malignant disease in the graft recipient receiving ALG.

The optimum method for production and utilization is yet to be elaborated.

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## Circulating Antibodies in Renal Transplant Recipients

Accelerated rejection of renal allografts frequently correlates with the presence of pretransplantation antibody in recipients. These antibodies may occur as a result of previous pregnancy, whole blood transfusion or tissue grafts. If such antibodies are active against donor antigens there is an 80 percent chance of immediate graft failure. This apparent humoral response has histologic features distinctly different from the classical

cellular, delayed graft rejection. All potential organ graft recipients should be tested for the presence of preformed circulating antibodies. This is done by testing recipients' serum against cells from a large number of random persons. Those with positive reactions should be tested with donor cells before organ transplantation to avoid the accelerated rejection.

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## Cadaver Organ Sharing

To achieve the maximum utilization of kidneys from cadaveric sources and to employ matching of donor recipient pairs by serological testing of leukocyte antigens a large number of transplantation centers are embarking upon a collaborative program. This is an extension of programs initiated in the large metropolitan areas of Los Angeles and New York. Kidneys have been transported by air between California and Louisiana, Utah and Oklahoma, California and Utah.

Although histocompatibility testing in cadaveric renal transplantation has not been proved as efficacious as in family donor transplants, it is hoped that all available kidneys and other vital organs will be utilized by such a cooperative program.

All prospective recipients are tissue typed and kept on file in the laboratory of Dr. Paul Teraskai at U.C.L.A. Prospective donors are usually typed antemortum, at which time the two most compatible kidney recipients are selected. The donor and recipient teams decide upon the acceptability of the organs and the method of transportation.

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